

# Collection of Measles Specimens for IgM Testing and Viral Isolation

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**Rapid laboratory confirmation of measles infection is based upon serologic testing (IgM-capture assay). In addition to collecting a serum sample from the patient, it is recommended the health care provider collect a clinical specimen (throat swab, nasopharyngeal swab, or nasal wash; and/or urine) for “virus isolation” as soon as possible after rash onset. Characterization of viral isolates is useful to determine the geographic origin of the virus and follow the epidemiology of circulating strains in the United States.**

## **Serum Specimens for Measles IgM Testing:**

Collect blood via venipuncture in a red top tube or a serum separator tube. Serum or plasma specimens are preferred. Do not freeze the specimen. Specimens, which cannot be delivered, should be shipped overnight under ambient temperature or with wet ice packs (e.g. cold packs). The measles IgM-capture assay is performed at CDPHE Laboratory.

## **Respiratory Specimens:**

1. Attempt to obtain the sample as soon as possible after onset of rash.
2. The preferred specimen is a nasal wash. Place all of the recovered wash solution in a tube of viral transport medium.
3. **OR** collect a nasopharyngeal or throat swab using a sterile dacron swab and place swab in tube of viral transport medium.
4. Refrigerate specimen(s) and deliver or ship to CDPHE Serology Laboratory on wet ice packs ( e.g. cold packs) within 24 hours. If immediate cold shipment (within 24 hours) cannot be arranged, call the CDPHE lab to determine the best method to handle the specimen. Call to notify CDPHE Serology Laboratory of specimen being delivered (303-692-3485 or 303-692-3499). CDPHE Laboratory sends respiratory specimens to CDC for virus isolation (culture).

## **Urine Specimens:**

Virus can often be isolated from the urine from 5 – 16 days after the onset of rash (collection within 5 days is preferred). Collect up to 50-100 ml of urine in a urine specimen container. Refrigerate specimen and deliver or ship to CDPHE Serology Laboratory on wet ice packs within 24 hours. Call to notify CDPHE Serology Laboratory of specimen being delivered (303-692-3485 or 303-692-3499) and if specimen cannot be delivered or shipped within 24 hours, call lab to determine the best method of handling specimen. CDPHE Laboratory sends urine specimens to CDC for virus isolation (culture).

## **Shipping:**

Specimens should be packed and shipped according to Department of Transportation and International Air Transportation Association requirements. **Ship specimens to:**

**Colorado Department of Public Health and Environment**

**L.A.R.S. / Serology Lab**

**8100 Lowry Blvd.**

**Denver, CO 80230**